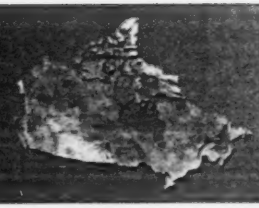


Canadian Natural Gas

›› Monthly Market Update

May 2010

›› Oil and Gas Policy, Analysis and Regulatory Affairs Division
Petroleum Resources Branch
Energy Sector

Natural Resources Canada | Ressources naturelles Canada

Canada

Copies of this publication may be obtained free of charge from:
Natural Resources Canada
Petroleum Resources Branch
580 Booth Street, 17th Floor
Ottawa, Ontario K1A 0E4
Phone: (613) 992-9612
TTY Service: (613) 996-4397 (Teletype for the hearing-impaired)
Fax (613) 995-1913
Email: prb.drp@nrcan-rncan.gc.ca
Web site: http://www.nrcan.gc.ca/eneene/sources/natnat/monmen-en.php
© Her Majesty the Queen in Right of Canada 2010
ISSN 1920-4418

Natural Resources Canada | Ressources naturelles Canada

Canada

Foreword

The Canadian Natural Gas: Monthly Market Update is a monthly analytical paper prepared by the Petroleum Resources Branch of Natural Resources Canada. The report provides the most recently available data on natural gas prices and related market fundamentals.

Please direct any comments or questions to Stacey Power at (613) 992-1023, or by email at Stacey.Power@nrcan.gc.ca

Executive Summary

This month, the Canadian Society for Unconventional Gas announced that based on new resource estimates, Canada has sufficient natural gas to last more than 100 years at current production rates. The revised estimates are largely on account of unconventional gas, particularly shale gas. Currently, shale gas development in Canada is still in its infancy compared to the United States.

Drilling is up 13% from last month and up 93% from May 2009. These statistics are in line with recent reports from the exploration-and-production sector which suggest that Canadian gas drilling could rebound in 2010. Also of note in May, sales and storage levels were up compared to 2009 levels, while heating degree days, production, exports and imports were down.

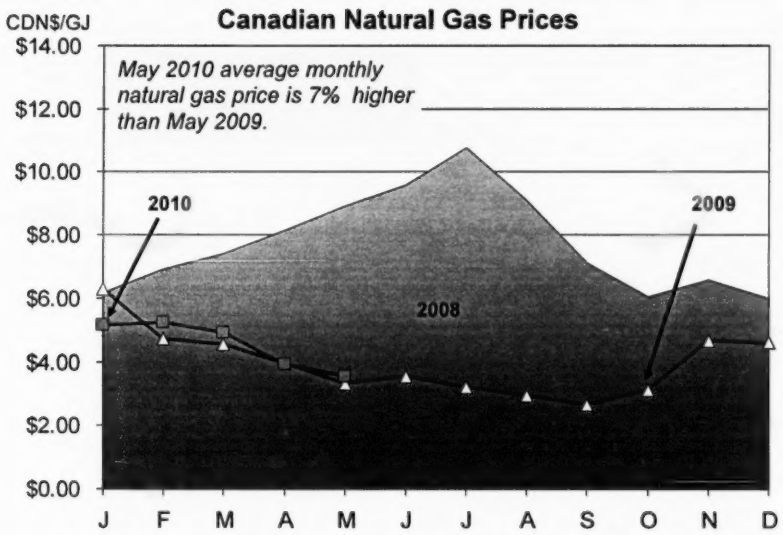
In May, the Alberta price of natural gas fell for the third consecutive month, down to a 7-month low of $3.56 CAN$/GJ. However, the National Energy Board's Summer Energy Outlook 2010 suggests that Canadian consumers can expect prices for natural gas to increase moderately this summer as energy demand rises along with improvements in the global economy.

Natural Gas Market Fundamental	Value	Percentage Change	
		Month 2010 vs. Month 2009	Current Month vs. Previous Month
Prices, CAN $/GJ (May-10)	3.56	+7%	-9%
Heating Degree Days (May-10)	159	-17%	-40%
Production, Bcf (Mar-09)	438	-7%	+3%
Sales, Bcf (Mar-10)	275	+3%	-9%
Exports, Bcf (Mar-10)	278	-6%	+3%
Imports, Bcf (Mar-10)	77	-18%	+34%
Storage, Bcf (May-10)	324	+26%	+16%
Drilling, wells (May-10)	528	+93%	+13%

Note: GJ: Gigajoule; Bcf: Billion Cubic Feet

Sources:
- *Crude Oil and Natural Gas (Preliminary)*, Statistics Canada
- *Natural Gas Transportation and Distribution, 55-002*, Statistics Canada
- *Supply and Disposition of Crude Oil and Natural Gas, 26-006*, Statistics Canada
- *Drilling Highlights*, Daily Oil Bulletin website: www.dailyoilbulletin.com
- Canadian Natural Gas Focus, GLJ Energy Publications Inc.
- *Natural Gas Storage Survey*, Canadian Enerdata Ltd.
- *Natural Gas Export Statistics*, National Energy Board website: www.neb-one.gc.ca
- Canadian Gas Association, website: www.cga.ca

Figure 1

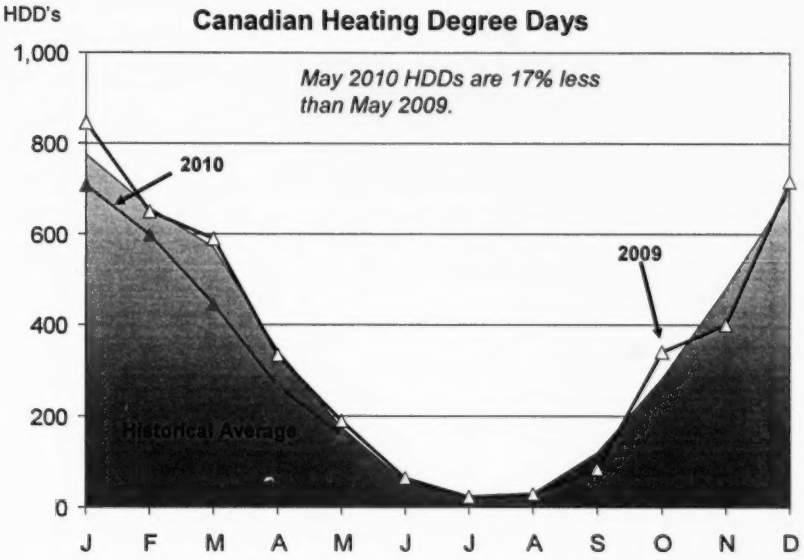


Source: GLJ Energy Publications **Note:** Canadian price is the Alberta price at the AECO hub.

Figure 1 illustrates the price of natural gas at the major Canadian pricing point – the Intra-Alberta market, a.k.a. AECO . The price is for gas delivered under a 30-day contract. The Intra-Alberta market is formed by gas delivered to pipelines in Alberta. Gas changes hands via Nova Inventory Transfers (NIT), exchanges at the AECO storage hub, or sales facilitated by the Natural Gas Exchange (NGX). This is a commodity price – a wholesale price in the producing area. Consumer (or "burner tip") prices will also include pipeline transmission and distribution costs, which vary across Canada. Natural gas is commonly measured in gigajoules (GJ) or cubic metres. A gigajoule is an energy unit, which equates to about 27 cubic metres of natural gas.

AECO natural gas prices averaged CDN $3.56/GJ in May 2010, 9% lower than the previous month but 7% higher than May 2009.

Figure 2



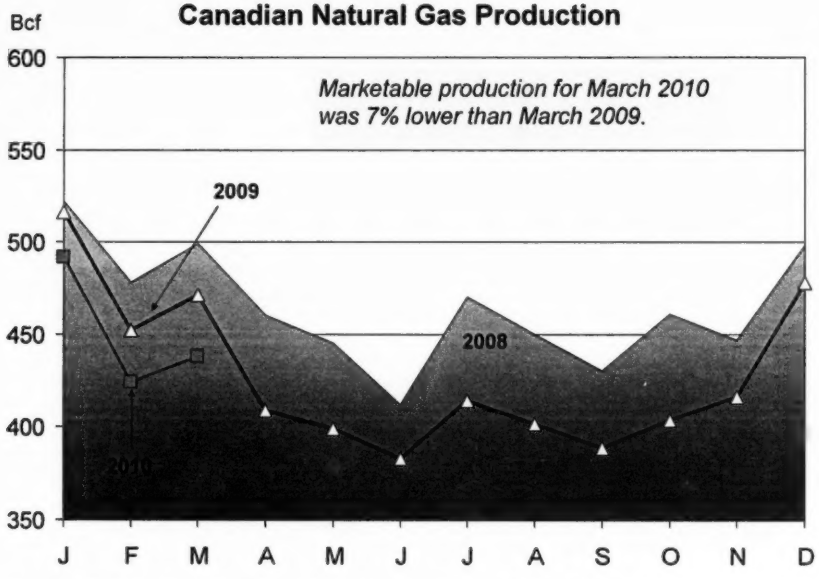
Source: Canadian Gas Association, NRCan

Figure 2 shows Canadian heating degree days (HDDs), which are a measure of how cold it is. The more HDDs in any season, the greater is natural gas demand for space heating. If a winter is unusually cold, demand for space heating will respond accordingly and natural gas prices will tend to be stronger. However, during a mild winter, natural gas demand for space heating will be weaker, which will tend to moderate prices.

In May 2010, there were 159 HDDs, 17% less than May 2009, and 40% less than the previous month. On average, May 2010 had 9% less HDDs than normal.

Figure 3

Canadian Natural Gas Production



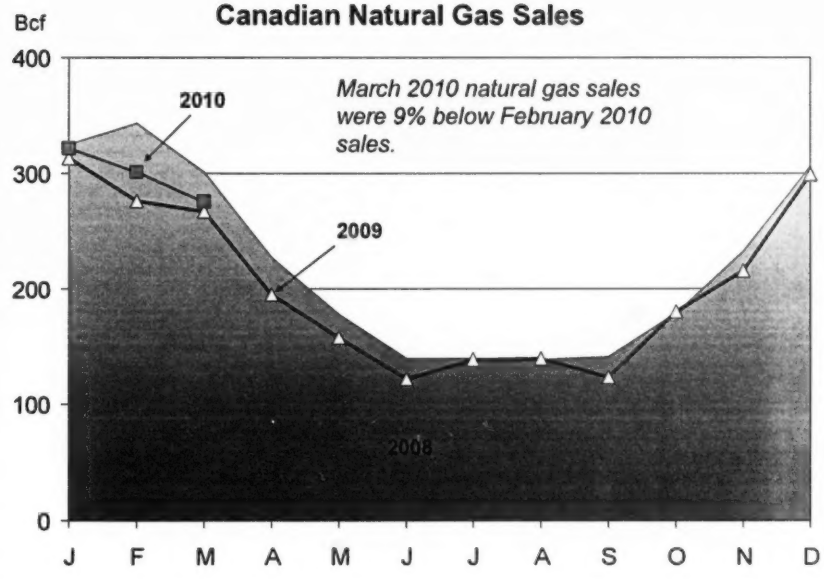
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 3 shows marketable natural gas production in Canada. Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses.

Marketable natural gas production in March 2010 was 438 Bcf. Production levels were 3% higher than February 2010, but 7% lower than March 2009.

Figure 4

Canadian Natural Gas Sales



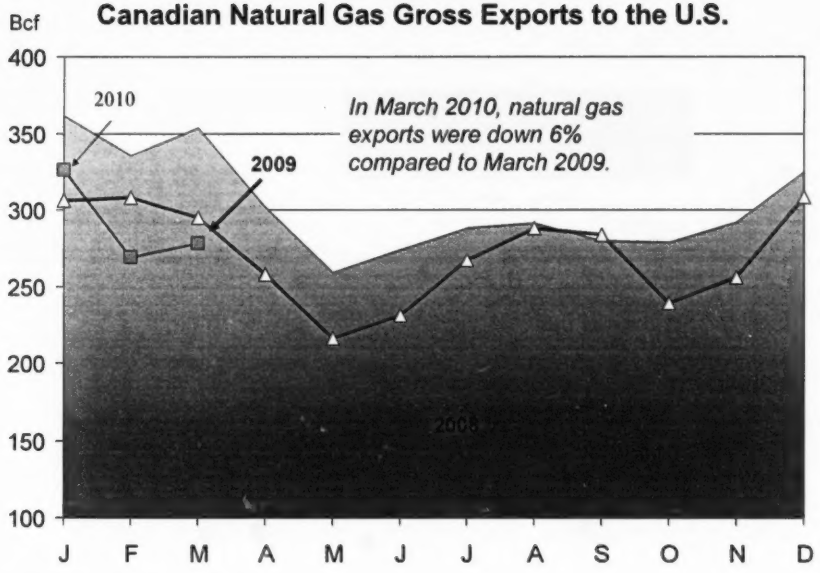
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 4 illustrates total Canadian natural gas sales. Sales include all natural gas sold to residential and commercial users (for space and water heating, cooking, etc), industries and electricity generating units in Canada. The totals do not include consumption by the natural gas industry itself (e.g., pipeline compressor fuel).

Natural gas sales to Canadian consumers in March 2010 were 9% lower than the previous month but 3% higher than sales in March 2009.

Figure 5

Canadian Natural Gas Gross Exports to the U.S.



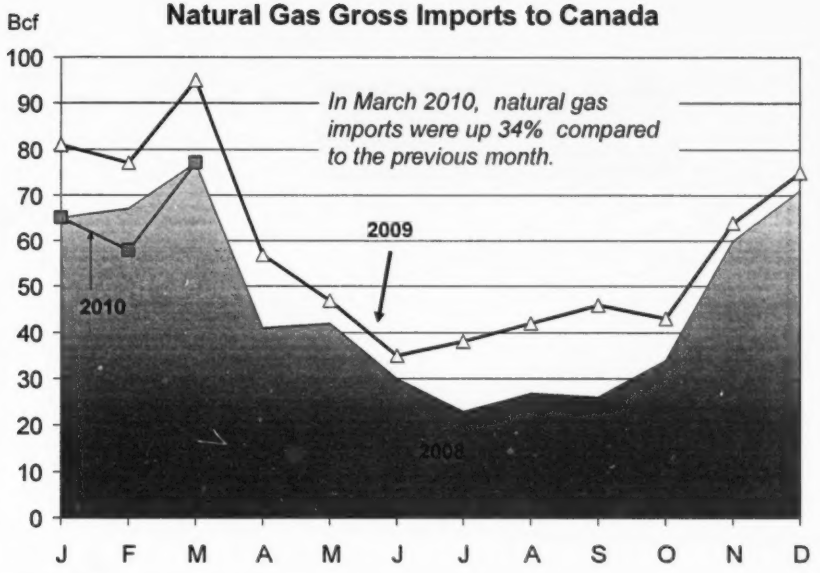
Source: National Energy Board

Figure 5 illustrates natural gas exports to the U.S. Canadian natural gas requirements are met mostly by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the U.S. consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. Typically, Canada exports between 50 and 60 per cent of its gas production.

In March 2010, natural gas exports to the U.S. were 278 Bcf, 3% more than the previous month, but 6% less compared to March 2009.

Figure 6

Natural Gas Gross Imports to Canada



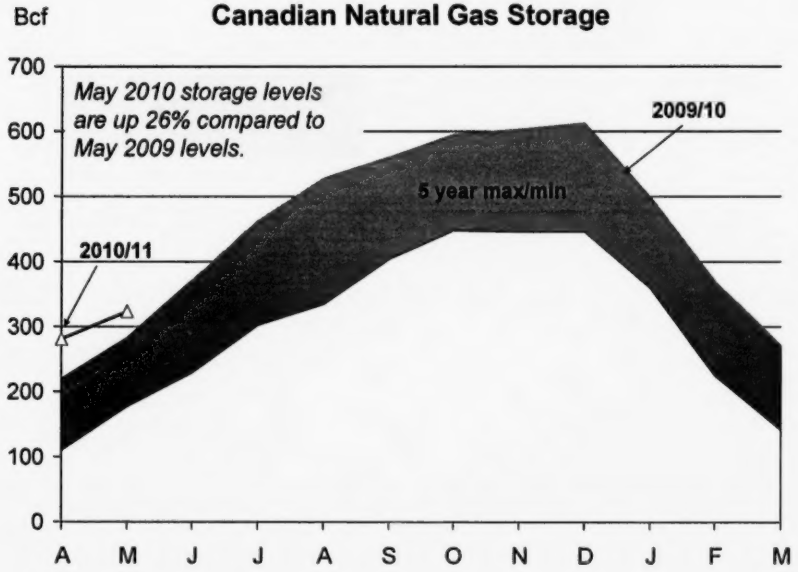
Source: National Energy Board

Figure 6 illustrates natural gas imports to Canada. Most natural gas is imported into Canada through major import points in southern Ontario. Imports into southern Ontario will likely rise in the future, as the province purchases more gas from the rest of North America due to flat production in the Western Canadian Sedimentary Basin. Presently, import volumes are significantly less than export volumes, and Canada remains a net exporter of natural gas.

In March 2010, natural gas imports to Canada were 77 Bcf, 34% more than the previous month, but 18% less compared to March 2009.

Figure 7

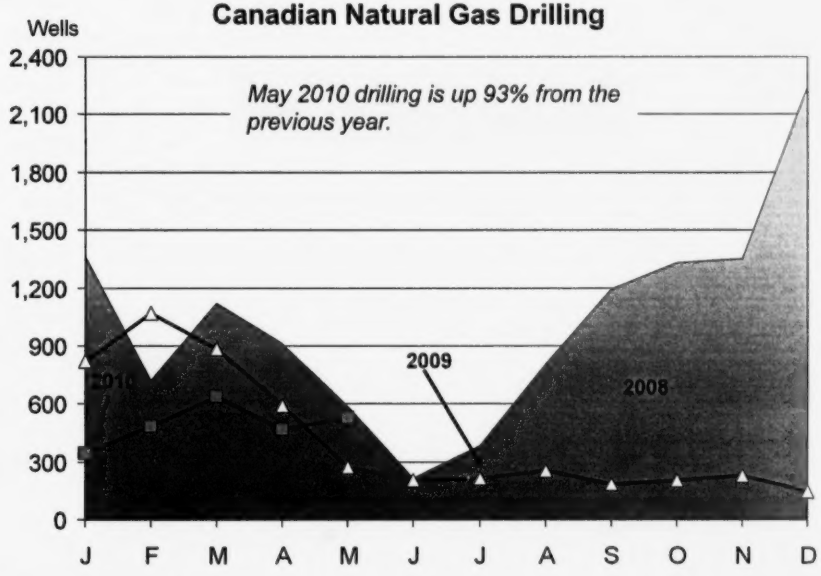
Canadian Natural Gas Storage



Source: Canadian Enerdata

Figure 8

Canadian Natural Gas Drilling



Source: Daily Oil Bulletin

Figure 7 illustrates natural gas storage levels in Canada. The amount of gas in storage generally follows a seasonal pattern. In the summer, when natural gas demand is low, gas is injected into storage. Storage volumes peak in the fall. In winter, volumes are drawn down, reaching a low point in the spring.

Canadian natural gas storage inventories increased by 44 Bcf during the month of May 2010 compared to April 2010. Storage inventories in May 2010 were up 26% from May 2009.

Figure 8 depicts the number of natural gas well completions in Canada. There is a time-lag between drilling a gas well and starting production, due to the work necessary to connect the new well to the pipeline grid. Drilling is therefore a good indicator of future natural gas supply.

There were 528 natural gas wells drilled in May 2010, an increase of 13% from April 2010 and an increase of 93% from May 2009.